Please replace the paragraph at page 9, lines 6-19 of the Specification with the following amended paragraph:

As is well known in the art, the following factors influence the characteristic impedance of trace 30: the dielectric constant and thickness of substrate layer 1, the strip width of trace 30, and the distance of the gap between trace 30 and each of additional ground planes 36 and 38 (if present). One usually has a desired characteristic impedance in mind (usually 50 ohms), and usually has to work with a given substrate layer thickness and dielectric constant. Therefore, one usually varies the strip width of trace 30 and the gap between it and the top-side ground planes 36 and 38 (if present) to achieve the desired level of characteristic impedance. This selection task has been well analyzed in the art, and many college-level books on electromagnetic engineering contain tables and charts which ~~related~~ **relate** the trace's strip width to the resulting level of characteristic impedance for a number of transmission line structures. Accordingly, the selection of strip width for trace 30 to achieve a desired level of characteristic impedance is within the ordinary skill of the art and no further explanation need be given here for one of ordinary skill in the art to make and use the present invention.

Please replace the paragraph at page 12, lines 10 - 20 of the Specification with the following amended paragraph:

In our case, we may view waveguide 10 as having a characteristic impedance which we want to match to the characteristic impedance of trace 30. (Methods of determining the characteristic impedance of a waveguide for a ~~desire~~ **desired** mode of excitation are well known to the art, as are methods for determining the characteristic impedance of electrical traces.) We then add capacitive reactance at the effective junction between trace 30 and the first end 11 of waveguide 10 to improve the matching between the characteristic impedances. Capacitive diaphragm 28 adds a capacitive reactance to the effective junction point. Increasing the width and/or the area of the diaphragm increases the amount of capactive **capacitive** reactance that is combined with the reactance of the patch antenna, and decreasing the width and/or area will decrease the amount of capacitive reactance.

Do Not Enter